



IV Amazonian Workshop on Black Holes and Analogue Models of Gravity

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Superradiance: Energy Extraction and Black hole bombs

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In this mini-course I will review processes leading to energy-extraction from black holes. In particular, the superradiant scattering of waves in black holes will be studied in detail. I'll review useful numerical and analytic techniques to study this and related phenomena in black hole spacetimes. I will finish by discussing interesting astrophysical implications of this effect.